


# **NASA Enterprise Applications Competency Center (NEACC)**

## **Advanced Business Application Programming (ABAP) Code Signoff Sheet**

### **Operational Work Instruction (OWI)**

REVISION F

Approved for Release - Distribution is Unlimited			
<u>APPROVING AUTHORITY</u>			
Signature	Name / Title	Org	Date
			

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## 1.0 INTRODUCTION

### 1.1 Purpose

The NEACC Advanced Business Application Programming (ABAP) Signoff Sheet provides a tool for the developers to follow for verification that the code developed (whether changes to existing code or new development) meets development standards as well as provide a list of touch points to be verified. This document also contains information pertinent to the code change, such as the object name and transport number to which a developer could search the object for specific code changes that were made.

The ABAP Team utilizes a Service Request (SR) for work that is identified in the NEACC Enhancement Requirements Form (NERF), or the milestone in the Application Points Capacity Management System (APCMS) to gather requirements for ABAP code changes. Once the SR is approved for work and assigned to a task in APCMS, the developer shall create / update the Software Requirement Specification (SRS) (see NEACC-CF\_ABAP-SPEC-SW-001, ABAP Software Requirement Specification) document and have a coworker approve the new document or the changes to an existing document. For break/fix SRs that do not impact an existing SRS; at minimum, the developer shall add a log entry to the SRS stating that no changes were needed. The coworker shall attach the approved SRS document to the APCMS milestone and enter their approval comments into the APCMS milestone (for audit purposes).

Once the coding is complete the developer shall perform a Unit Test and document their changes in the Application Lifecycle Management (ALM) tool and attach a copy of the unit test report or a link for the unit test report to the milestone in APCMS. Once this is complete, the developer shall fill out an ABAP Code Signoff Sheet and partner with another developer to review the code changes and track all the reviewed objects on the Code Signoff Sheet while checking for standards and errors. A copy of the Code Signoff Sheet is located in the Templates folder of the ABAP project on the NEACC tab of bReady, file name: SAP ABAP Code Signoff.docx.

Code reviews are required with each transport for the SR except when unit testing cannot be completed on the development system. Whenever a subsequent code review occurs, the programmer either creates a new Code Signoff Sheet or updates the existing document with the transport number and any additional information that is pertinent to the review.

Once the ABAP Code Signoff Sheet is complete, the associated APCMS task shall be marked complete. The developer shall attach a copy of the Code Signoff Sheet to the APCMS milestone and make a notation of the transport number and JIRA ticket in the Migration Notes section of the APCMS milestone.

A copy of this document is located in the Standards folder of the ABAP project on the NEACC tab of bReady, file name: NEACC-CF-ABAP-STD-SW-002 ABAP Code Signoff Sheet.docx. The NEACC Documentation Management personnel hold the official copy of this document in Documentum and users may request a copy from this department.

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**Note:** All references in this document to **bReady** refer to the bReady Enterprise Portal at the URL address of [REDACTED]. The ABAP Project on the bReady portal replaces the shared drive as the designated repository for ABAP team documentation.

## 1.2 Applicability

This document is applicable to the NEACC ABAP Application Developer personnel.

## 1.3 Applicable Documents

- IS01-NEACC-CF\_ABAP-STD-SW-001, ABAP Development Naming Standards.
- IS01-NEACC-CF\_ABAP-STD-SW-003, SAP ABAP Development Standards

## 1.4 References

None

## 1.5 Definitions

**Table 1 – Definitions**

Term	Definition
ALM Tool	An application formerly called the QC tool that the ABAP Team uses to enter and store test steps and test results as well as track defects.
Unit Test	A test performed in the development environment to ensure modified and related code produced the desired results as requested.
Remedy	An enterprise web based ticketing system NASA uses for Business Service Management.
JIRA	Migration Tracking Software provided by Atlassian used by the ABAP team to track SAP ABAP transport migration requests from the development system to the production system.

## 1.6 Acronyms/Abbreviations

**Table 2 – Acronyms and Abbreviations**

Acronym	Description
ABAP	Advanced Business Applications Programming
ALM	Application Lifecycle Management
APCMS	Application Points Capacity Management System
GUI	Graphical User Interface
NASA	National Aeronautics and Space Administration
NEACC	NASA Enterprise Application Competency Center

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Acronym	Description
NERF	NEACC Enhancement Requirements Form
OSS	Online SAP Support
OWI	Operational Work Instruction
QA	Quality Assurance
QC	Quality Center
RICEF	Reports, Interfaces, Conversions, Enhancements and Forms.
SAP	System Application and Product
SR	Service Request
SRS	Software Requirement Specification
SBU	Sensitive But Unclassified
PII	Personally Identifiable Information

## 2.0 ROLES AND RESPONSIBILITIES

**Table 3 – Roles and Responsibilities**

Role	Description
ABAP Code Developer	<p>The ABAP Developer shall:</p> <ul style="list-style-type: none"> <li>• Create a task or tasks in Rally pertaining to the SR requested</li> <li>• Create an SRS document for new code development or update an existing SRS document and send to a peer developer for approval</li> <li>• Perform the code creations or updates by creating one or more transports in the SAP Development environment</li> <li>• Create a Unit Test Plan for new code development or update an existing Unit Test Plan with necessary modifications and request the QA team to store this plan in ALM</li> <li>• Perform Unit Testing</li> <li>• Fill out an ABAP Code Signoff Sheet</li> <li>• Work with partner to review the Code Signoff Sheet</li> <li>• Upload all pertinent documents to the APCMS milestone (i.e., Code Signoff Sheets, unit test results, SRS)</li> </ul>
Peer Developer	<p>The Peer Developer shall:</p> <ul style="list-style-type: none"> <li>• Perform a code review with the original developer reviewing all aspects of the modification or new development. The Code Signoff sheet will be used as the driver for these tasks. By following the Code Signoff sheet, the developer and the peer developer can be assured that all steps were covered and the document meets coding standards.</li> </ul>

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### 3.0 INSTRUCTIONS

The basis of this OWI is to establish strategic direction for the operations and maintenance of the ABAP Code Signoff Sheet. Key team members are assigned to maintain specific sections of this OWI; however, all team members shall be responsible for knowing and following the roles and responsibilities assigned to them that are outlined in this OWI. The procedures shall be reviewed and updated as required to ensure real-time accuracy of the processes but no less than annually. Additionally, the ABAP manager shall review and approve this OWI in its entirety during its annual review.

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## 4.0 RECORDS

**Table 4 – Records Applicable to This Document**

Name of Record	Storage Location	SBU/PII*	Retention Schedule	Responsible Party	E-mail	Phone No.
SRS Technical Specification Document		No/No	2/27/C/2/(a)			
ABAP Unit Test Plan		No/No	2/27/C/2/(a)			
Executed ABAP Unit Test Plan Results		No/No	2/27/C/2/(a)			
Completed SAP ABAP Code Signoff Sheet		No/No	2/27/C/2/(a)			
JIRA Tickets for each SAP R/3 Transport		No/No	2/27/C/2/(a)			
Inventory of custom RICEF objects		No/No	2/27/C/2/(a)			

\*SBU = Sensitive But Unclassified; PII = Personally Identifiable Information

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## APPENDIX A – PEER CODE REVIEW PROCESS

### A.1.1 Peer Code Review

The Peer Code Review process is to be conducted by a peer developer, in conjunction with the developer assigned to the SR, following the process below:

- ☐ Once the development and unit test is completed in the development environment, the developer should partner with a peer developer from the same development area.
- ☐ The peer developer should review with the developer the attached NERF form or the APCMS milestone to review the nature of the problem or new development and how it was recommended to be resolved or accomplished.
- ☐ The developer creates the Code Signoff document for review (see subsequent steps).
- ☐ Go to the Templates folder of the ABAP project on the NEACC tab of bReady.
- ☐ Open the latest version of the document entitled “SAP ABAP Code Signoff.docx”.
- ☐ Save a working copy of the document to the local hard drive using the following naming convention: “SR-XXXXX [Brief description] Code Signoff.doc” (to be attached to the APCMS milestone later).
- ☐ Complete the header section of the Code Sign-off form with the appropriate information.
- ☐ Verify all items listed in each section of the Code Sign-off form, including Comments, General Coding Standards, Performance Requirements, Error Handling, Security, and Migration Process. Pay special attention to the following:
  - Review header comments verifying that completion date, analyst name, transport number(s), and comments exist. Comments should include SR number and brief details of code change per transport number. (If new development, comments should include same information including created by names and created on dates.)
  - Verify all areas of code changes follow the ABAP development and documentation standards.
  - Verify all necessary code review form sections are populated with pertinent information.
  - Verify approved SRS document, and Unit Test results are attached to the milestone in APCMS. Verify related transport numbers and their associated JIRA tickets are listed in the Migration Notes section of the milestone in APCMS (the list does not need to be in any specific order).
  - Ensure transport number (using SE09) contains SR# and description.
  - Verify that an extended program check was completed for the main program or class (select all checks and use the default check level of standard). All error messages shall be reviewed. If any error messages are permitted by the

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programmer, the reviewer should concur. Record the total number of error messages permitted in the code sign-off. Every effort should be made to resolve all error messages; however, there are cases when permitting the error message makes sense.

- Verify that the associated entry in the RICEF ID spreadsheet is up to date.
- Save this form and attach it to the milestone in APCMS.

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## APPENDIX B – BLANK ABAP CODE SIGNOFF SHEET

The ABAP Signoff Sheet template version is current as of the effective date of this document.



SAP ABAP Code  
Signoff.docx

**Figure 1 – SAP ABAP Code Signoff Template – Version 25**

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## APPENDIX C – POINTS OF CONTACT

**Table 5 – Points of Contact**

Name	Position	Center	Phone No.
	ABAP Manager	NEACC	
	ABAP Application Developer	NEACC	
	ABAP Application Developer	NEACC	

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